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JUNE 15, 1999

PTAS

PENNIE & EDMONDS LLP
BRIAN M. POISSANT
1155 AVENUE OF THE AMERICAS
NEW YORK, NY 10036



101003004A

3907-076

JUN 29 1999
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OFFICE

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/01/1999

REEL/FRAME: 9860/0805
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
BJORKMAN, PAMELA J.

DOC DATE: 03/19/1999

ASSIGNOR:
BENNETT, MELANIE

DOC DATE: 03/19/1999

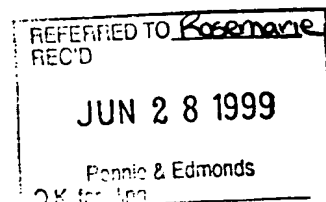
ASSIGNOR:
LEBRON, JOSE

DOC DATE: 03/19/1999

ASSIGNEE:
CALIFORNIA INSTITUTE OF TECHNOLOGY
1200 E. CALIFORNIA BOULEVARD
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09216077
PATENT NUMBER:

FILING DATE: 12/18/1998
ISSUE DATE:

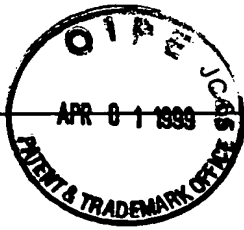


9860/0805 PAGE 2

MARY BENTON, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

04-07-1999

Express Mail No. EL 236 252 236 US



101003004

Attorney Docket Number
8907-076-999TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS
Box Assignment
Washington, DC 20231

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Pamela J. Bjorkman, Melanie Bennett and Jose Lebron

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: March 19, 1999

2. Name and address of receiving party(ies):

Name: California Institute of TechnologyAddress: 1200 E. California Boulevard
Pasadena, CA 91125

Country (if other than USA): _____

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) 09/216,077

B. Patent No.(s) _____

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

PENNIE & EDMONDS LLP
1155 Avenue of the Americas
New York, NY 10036

6. Number of applications and patents involved: _____

7. Total fee (37 CFR 3.41):.....\$ 40
Please charge to the deposit account listed in Section 8.8. Deposit account number:
16-1150

DO NOT USE THIS SPACE

9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Brian M. Poissant28,462Brian M. PoissantApril 1, 1999

Name of Person Signing Reg. No.

Signature

Date

Total number of pages including cover sheet:

4

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignment
Washington, D.C. 20231

04/06/1999 VBROWN 00000028 161150 09216077

01 FC:581 40.00 CH

ASSIGNMENT

WHEREAS, WE, PAMELA J. BJORKMAN, residing at 1630 Casa Grande Street, Pasadena, California 91104; MELANIE BENNETT, residing at 545 S. Euclid Avenue, #2, Pasadena, California 91101; and JOSE LEBRON, residing at 294 S. Wilson #6, Pasadena, California 91106, ASSIGNORS, citizens of the United States, are the inventors of the invention in **PEPTIDES AND PEPTIDE ANALOGUES DESIGNED FROM HFE PROTEIN AND THEIR USES IN THE TREATMENT OF IRON OVERLOAD DISEASES** for which we have executed an application for a Patent of the United States

☐ which is executed on ☐ even date herewith or ☐ _____

☒ which is identified by Pennie & Edmonds LLP docket no. 8907-076-999
☒ which was filed on December 18, 1998, Application No. 09/216,077

and WHEREAS, CALIFORNIA INSTITUTE OF TECHNOLOGY, having a principal place of business at 1200 E. California Boulevard, Pasadena, California 91125, ASSIGNEE is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date 3/19/99, 1999 Pamela J. Bjorkman L.S.
Pamela J. Bjorkman

State of _____ }
County of _____ } SS.:

Please see attached certificate

On this _____ day of _____, 1999, before me, a Notary Public in and for the State and County aforesaid, personally appeared Pamela J. Bjorkman, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of

California

County of

Los Angeles

On

March 19, 1999

Date

before me,

Lisa Marie Telles, Notary Public

Name and Title of Officer (e.g., Jane Doe, Notary Public)

personally appeared

Pamela J. Bjorkman, Melanie Bennett, & Jose Lebron

Name(s) of Signer(s)

☐ personally known to me **OR** ☒ proved to me on the basis of satisfactory evidence to be the person(s)

whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Lisa Marie Telles
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document:

Assignment

Document Date:

3/19/99

Number of Pages:

1

Signer(s) Other Than Named Above:

none

Capacity(ies) Claimed by Signer(s)

Signer's Name:

- ☐ Individual
☐ Corporate Officer
Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing:

RIGHT THUMBPRINT
OF SIGNER
Top of thumb here

Signer's Name:

- ☐ Individual
☐ Corporate Officer
Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing:

RIGHT THUMBPRINT
OF SIGNER
Top of thumb here



Date March 19, 1999 Melanie Bennett L.S.
Melanie Bennett

State of _____ }
County of _____ } SS.:

Please see attached certificate

On this _____ day of _____, 1999, before me, a Notary Public in and for the State and County aforesaid, personally appeared Melanie Bennett to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public.

Date MARCH 19, 1999 J-Lebron L.S.
Jose Lebron

State of _____ }
County of _____ } SS.:

Please see attached certificate

On this _____ day of _____, 1999, before me, a Notary Public in and for the State and County aforesaid, personally appeared Jose Lebron, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public.



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
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OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

MARCH 31, 2000

PTAS

PENNIE & EDMONDS LLP
BRIAN M. POISSANT
1155 AVENUE OF THE AMERICAS
NY, NY 10036



101247536A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/06/2000

REEL/FRAME: 010489/0178
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

PROGENITOR, INC.

DOC DATE: 03/24/1999

ASSIGNEE:

BIO-RAD LABORATORIES, INC.
1000 ALFRED NOBEL DRIVE
HERCULES, CALIFORNIA 94547

SERIAL NUMBER: 08436074 ✓ 8907-046
PATENT NUMBER: 5753438 ✓

FILING DATE: 05/08/1995
ISSUE DATE: 05/19/1998

SERIAL NUMBER: 08599252 ✓ 8907-049
PATENT NUMBER: 5705343 ✓

FILING DATE: 02/09/1996
ISSUE DATE: 01/06/1998

SERIAL NUMBER: 08632673 8907-052
PATENT NUMBER: 5712098 ✓

FILING DATE: 04/16/1996
ISSUE DATE: 01/27/1998

SERIAL NUMBER: 08652265 ✓ 8907-053 ?
PATENT NUMBER: 6025130 ✓

FILING DATE: 05/23/1996
ISSUE DATE: 02/15/2000

RECEIVED
PENNIE & EDMONDS

APR 07 2000

CA OFFICE

REFERRED TO <i>Kyria/11/2/2000</i> REC'D
APR 06 2000
Pennie & Edmonds O.K. for filing

SERIAL NUMBER: 08724394-8907-054 99
PATENT NUMBER: 5872237/

FILING DATE: 10/01/1996
ISSUE DATE: 02/16/1999

SERIAL NUMBER: 08834497 8907-056 999
PATENT NUMBER:

FILING DATE: 04/04/1997
ISSUE DATE:

SERIAL NUMBER: 08852495 ✓ 8907-057 999
PATENT NUMBER:

FILING DATE: 05/07/1997
ISSUE DATE:

SERIAL NUMBER: 08867010 ✓ 8907-059 999
PATENT NUMBER:

FILING DATE: 06/02/1997
ISSUE DATE:

SERIAL NUMBER: 08920559 8907-062 999?
PATENT NUMBER:

FILING DATE: 08/27/1997
ISSUE DATE:

SERIAL NUMBER: 09094964 ✓ 8907-074 999
PATENT NUMBER:

FILING DATE: 06/12/1998
ISSUE DATE:

SERIAL NUMBER: 09216077 8907-076 999?
PATENT NUMBER:

FILING DATE: 12/18/1998
ISSUE DATE:

KIMBERLY WHITE, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

MAIL DATE CANCELLED
JAN 10 2000
PATENT & TRADEMARK OFFICE

01-19-2000

101247536

Mail No. EL 236 253 072 US

Attorney Docket Numbers

8907-046-999; 8907-049-999; 8907-052-999; 8907-053-999;
8907-054-999; 8907-056-999; 8907-057-999; 8907-059-999;
8907-062-999; 8907-074-999; 8907-076-999

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS
Box Assignment
Washington, DC 20231

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): Progenitor, Inc. Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): Name: <u>Bio-Rad Laboratories, Inc.</u> Address: <u>1000 Alfred Nobel Drive</u> <u>Hercules, CA 94547</u> Country (if other than USA): _____
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____ Execution Date: <u>March 24, 1999</u>	

4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: _____ A. Patent Application No.(s) <u>08/436,074 (now US 5,753,438); 08/599,252 (now US 5,705,343); 08/632,673 (now US 5,712,098); 08/652,265, 08/724,394 (now US 5,872,237); 08/834,497; 08/852,495; 08/867,010; 08/920,559; 09/094,964; 09/216,077</u> Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		B. Patent No.(s) _____
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	------------------------

5. Name and address of party to whom correspondence concerning document should be mailed: PENNIE & EDMONDS LLP 1155 Avenue of the Americas New York, NY 10036	6. Number of applications and patents involved: <u>11</u>
	7. Total fee (37 CFR 3.41):.....\$ <u>440.00</u> Please charge to the deposit account listed in Section 8.
	8. Deposit account number: <u>16-1150</u>

01/16/2000 DNBUYEN 00000103 161150 08436074
01 FC:581 440.00 CH

DO NOT USE THIS SPACE

9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i>	
Brian M. Poissant Name of Person Signing	28,462 Reg. No.
Signature <u>Brian M. Poissant</u> <u>By: [Signature] 42067</u>	
Date <u>Jan. 6, 2000</u>	
Total number of pages including cover sheet: <u>5</u>	

ASSIGNMENT

WHEREAS, Progenitor, Inc., a Delaware corporation having offices at 4040 Campbell Avenue, Menlo Park, California 94025 ("PROGENITOR"), owns, by assignment, all right, title, and interest in those patents and patent applications set forth on Exhibit A hereto and all inventions claimed therein (the "PROGENITOR PATENTS"); and Bio-Rad Laboratories, Inc., a Delaware corporation having offices at Corporate Offices, 1000 Alfred Nobel Drive, Hercules, California 94547 ("BIO-RAD"), desires to acquire PROGENITOR's entire right, title, and interest in and to the PROGENITOR PATENTS.

NOW THEREFORE, be it known that, in consideration of one dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged, PROGENITOR hereby sells, assigns, transfers, and sets over to BIO-RAD, its lawful successors and assigns, PROGENITOR's entire right, title, and interest in and to the PROGENITOR PATENTS and all inventions disclosed therein, and all letters patent of the United States that may be granted thereon, and all reissues, reexaminations, and extensions thereof; and all rights to claim priority on the basis of all such patents and patent applications, and all applications for letters patent claiming priority from the PROGENITOR PATENTS that have been or may be filed in any foreign country and all such letters patent that may be granted thereon in any foreign country, and all extensions, renewals, and reissues thereof; and PROGENITOR hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all letters patent for this invention to BIO-RAD, its successors and assigns, in accordance with the terms of this Assignment;

AND, PROGENITOR HEREBY further covenants that PROGENITOR has the full right to convey the interest assigned by this Assignment, PROGENITOR will take all action and execute all documents necessary to perfect the interest assigned hereby, and PROGENITOR has not executed and will not execute any agreement in conflict with this Assignment;

AND, PROGENITOR HEREBY further covenants and agrees that PROGENITOR, through its officers and employees, will, without further consideration, communicate with BIO-RAD, its successors and assigns, any facts known to PROGENITOR and its officers and employees respecting the invention and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver all papers that may be necessary or desirable to perfect the title to the invention in said BIO-RAD, its successors and assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths, and generally do everything possible to aid BIO-RAD, its

successors and assigns, to obtain and enforce proper patent protection for the invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by BIO-RAD, its successors and assigns.

IN WITNESS WHEREOF, each party has caused its authorized representative to execute this Assignment.

PROGENITOR, INC.

By: 

Name: Mark Baghall

Title: Vice President and Chief Financial Officer

Date: 3/24/99

EXHIBIT A

TO

ASSIGNMENT

BETWEEN PROGENITOR, INC. AND BIO-RAD LABORATORIES, INC.

I. U.S. PATENTS AND PATENT APPLICATIONS

<u>Inventor</u>	<u>Serial No.</u>	<u>Filed</u>	<u>Title</u>
Drayna et al.	08/436,074	05/08/95	Method to Diagnose Hereditary Hemochromatosis
Drayna et al.	08/599,252	02/09/96	Method to Diagnose Hereditary Hemochromatosis
Tsuchihashi et al.	08/632,673	04/16/96	Hereditary Hemochromatosis Diagnostic Markers and Diagnostic Methods
Thomas et al.	08/652,265	05/23/96	Hereditary Hemochromatosis Gene
Feder et al.	08/724,394	10/01/96	Megabase Transcript Map: Novel Sequences and Antibodies Thereeto
Thomas et al.	08/834,497	04/04/97	Hereditary Hemochromatosis Gene
Ruddy and Wolff	08/852,495	05/07/97	Polymorphisms in the Region of the Human Hemochromatosis Gene
Feder et al.	08/876,010 08/867,010	06/13/97	Methods and Compositions for Diagnosis and Treatment of Iron Overload Diseases
Feder et al.	08/920,559	08/27/97	Methods and Compositions for Diagnosis and Treatment of Iron Misregulation Diseases
Feder et al.	09/094,964	06/12/98	Methods and Compositions for Diagnosis and Treatment of Iron Overload Diseases and Iron Deficiency Diseases
Feder et al.	09/216,077	12/18/98	Peptides and Peptide Analogues Designed from HFE Protein and Their Uses in the Treatment of Iron Overload Disease

D Given
DOUGLASS GIVEN
PRESIDENT
PROGENITOR, INC
5/31/00

II. FOREIGN PATENTS AND PATENT APPLICATIONS

<u>Country</u>	<u>Application No.</u>	<u>Filed</u>
Canada	2,220,293	05/08/96
Australia	58559/96	05/08/96
South Africa	96/3639	05/08/96
EPO	96920167.2	05/08/96
PCT	PCT/US96/06583	05/08/95
South Africa	97/6370	03/19/97
South Africa	97/8804	10/01/97
PCT	PCT/US97/17658	09/30/97
Canada		04/04/97
Australia	26701/97	04/04/97
EPO	97918642.6	04/04/97
PCT	PCT/US97/06254	04/04/97
PCT	PCT/US98/12436	06/12/98